

split

Work Order ID 159679-1

159679

Page 1

Monday, April 17, 2017 2:27:08 PM

Item ID: 646.3301 Accept *N900040100* Setup Start *NS1*
Revision ID: Stop *NS2*
Item Name: Upper Cutter Assembly
Start Date: 4/17/2017 Start Qty: ~~10.00~~ *10* Cust Item ID:
Required Date: 5/11/2017 Req'd Qty: 10.00 *10* Customer:
Reference: SCHEDULED/S

Approvals: Process Plan:  Date: APR 17 2017 Tooling: Date: Run Start *NR1*
QC: Date: SPC (Y/N): Date: Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
646.3300	NC3

110	Pick Kit	0.00			DAS 30 9-89				APR 17 2017
110									
Packaging	Memo	0.80							
Packaging									

120		0.00							
120									
Small Fab	Memo	3.89							
Small Fab	TWO fastener must be install finger-tight (see note 9)								

Assemble as per dwg and apply loctite 598 on all faying surfaces shown on dwg per note 7.

A/R RTV LOCTITE 598: 136701
exp. date: 10/18

2x 17/04/20 DAS 36 9-89

Work Order ID 159679

Monday, April 17, 2017 2:27:08 PM

159679

Page 2

Item ID: 646.3301

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Upper Cutter Assembly

Start Date: 4/17/2017 Start Qty: 10.00

10

Cust Item ID:

Required Date: 5/11/2017 Req'd Qty: 10.00

10

Customer:

Reference: SCHEDULED/S

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	QC5- Inspect part completeness to step on W/O	0.00							
130									
QC	Memo	0.80				9		APR 21 2017	DAS 38 9-89
Quality Control									
140	Identify as per dwg & Stock Location: <u>CK08</u>	0.00							
140									
Packaging	Memo	0.20				9		APR 25 2017	DAS 6 9-89
Packaging	***IDENTIFY AS PER APICAL MPP-120 BY STAMPING THE P# AND REV***								
150	QC21- Final Inspection - Work Order Release	0.00							
150									
QC	Memo	0.10							
Quality Control									

DAS
21
9-89

APR 25 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																																			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval																																																																	
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OTHER : _____																																																																					

Picklist Print

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Page 1

Work Order ID: 159679

159679

Parent Item: 646.3301

646.3301

Parent Item Name: Upper Cutter Assembly

Start Date: 4/17/2017

Required Date: 5/11/2017

Start Qty: 10.00

Required Qty: 10.00

Comments: IPP REV:A 12.10.19 NEW ISSUE DD VERF:JLM
REV:B 15.01.07 AS PER DWG NC3 DD VERF:JLM

IPP

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
646.3310 *646.3310* LH Half - Upper Cutter Assembly		Manufactured	No			110	Each	10.0000	1	10	DAS 30 9-89		APR 17 2017
				<u>Location</u>				<u>Loc Qty</u>					
				CCK022				10					
				151673				2					
				155812				8					
646.3311 *646.3311* RH Half - Upper Cutter Assembly		Manufactured	No			110	Each	11.0000	1	10	DAS 30 9-89		APR 17 2017
				<u>Location</u>				<u>Loc Qty</u>					
				CCK022				11					
				155708				6					
				156787				5					
646.3312 *646.3312* Center Plate		Manufactured	No			110	Each	16.0000	1	10	DAS 30 9-89		APR 17 2017
				<u>Location</u>				<u>Loc Qty</u>					
				cck023				16					
				155841				6					
				156875				10					

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
								Completed By	
								Lead hand / Supervisor Approval Verification	
						QC / QA Coordinator Approval			

Root Cause				FAULT CATEGORY			
Environment ☐	☐ No Re-verification	☐ Pressure/Forced	☐ Temperature/Cure	☐ Power Loss/Surge	☐ Positioned Wrong		
Design ☐	☐ Operator	☐ Bending	☐ Set-up	☐ Folio/Program	☐ Outside Dimensions		
Doc/Data ☐	☐ Offset/Setup	☐ Centre Not Concentric	☐ BOM/Route	☐ Grain	☐ Over/Under tolerance		
Equip/Tooling ☐	☐ Supplier	☐ Cracks	☐ Broken/Damage/Defect	☐ Weld	☐ Part Incorrect		
Handling/Pre ☐	☐ Training	☐ Crimp/Kink/Ripple/Wave	☐ Inspection Incomplete/Unqualified	☐ Wrong Stock Pulled	☐ Part Lost/Missing		
Material ☐	☐ Use for Testing	☐ Cuffs	☐ Contamination	☐ Out of Sequence	☐ Part Moved		
Internal Transport ☐	☐ Poor Information	☐ Crushing	☐ Countersink	☐ Off-set	☐ Drawing		
Tribal Knowledge ☐	☐ Rushing	☐ Heat Treat	☐ Cut Too Short	☐ Mislabeled	☐ Finish		
LOA ☐	☐ Product Improvement	☐ Wave/Twist in Tube	☐ Instructions Incomplete/Unclear	☐ Fit/Function	☐ Misread		
Substation ☐	☐ Process Improvement	☐ Marks/Chatter	☐ Drill Holes	☐ Misaligned/off center	☐ Turning Sequence		
Past Expiry Date ☐	☐ Manufacturing Process	OTHER : _____					
Misidentified ☐	☐ Past Due						

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Page 2

Work Order ID: 159679

159679

Parent Item: 646.3301

646 3301

Parent Item Name: Upper Cutter Assembly

Start Date: 4/17/2017

Required Date: 5/11/2017

Start Qty: 10.00

Required Qty: 10.00

646.3313 Manufactured No

110 Each 16.0000 1 10

DAS
30
9-89

APR 17 2017

646 3313

Upper Guide

Location

Loc Qty

Loc Code

cck059A

16

155732

6

156803

10

646.3314 Manufactured No

110 Each 9.0000 1 10

DAS
30
9-89

APR 17 2017

646 3314

Blade

Location

Loc Qty

Loc Code

cck103

9

151675

1

155621

8

646.3315 Manufactured No

110 Each 13.0000 1 10

DAS
30
9-89

APR 17 2017

646 3315

Blade

Location

Loc Qty

Loc Code

cck103

13

155385

3

156852

10

646.3316 Manufactured No

110 Each 14.0000 1 10

DAS
30
9-89

APR 17 2017

646 3316

Blade

Location

Loc Qty

Loc Code

cck103

14

155368

4

156804

10

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DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

Picklist Print

Monday, April 17, 2017 2:27:08 PM

Work Order ID: 159679

159679

Parent Item: 646.3301

646.3301

Parent Item Name: Upper Cutter Assembly

Start Date: 4/17/2017

Required Date: 5/11/2017

Start Qty: 10.00

Required Qty: 10.00

NAS1149FN832P

Purchased

No

110

Each

1,498.000

36

360

NAS1149FN832P

Washer

★★

17/04/18 DAS 36 9-89

Location

Loc Qty

Loc Code

GA

323

M135058

232

M136182

91

ST263

1175

M136866

1175

31
309

MS21042L08

Purchased

No

110

Each

422.0000

18

180

MS21042L08

Nut

★★

17/04/18 DAS 36 9-89

Location

Loc Qty

Loc Code

GA

394

m135274

18

m135978

376

ST303

28

m137061

28

180

NAS1149F0332P

Purchased

No

110

Each

1,744.000

6

60

NAS1149F0332P

Washer

★★

17/04/18 DAS 36 9-89

Location

Loc Qty

Loc Code

GA

335

m133709

335

ST262

1409

m136835

8

m137075

1401

60

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
								Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐	OTHER : _____			

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Work Order ID: 159679

159679

Parent Item: 646.3301

646.3301

Parent Item Name: Upper Cutter Assembly

Start Date: 4/17/2017

Required Date: 5/11/2017

Start Qty: 10.00

Required Qty: 10.00

AN3-12A

Purchased

No

110

Each

256.0000

2

20

AN3-12A

Bolt

DAS

30

9-89

APR 17 2017

DAS

36

9-89

Location

Loc Qty

Loc Code

over003

206

153854

206

ST349

50

m135603

50

20

MS21042L3

Purchased

No

110

Each

1,287.000

3

30

MS21042L3

Nut

DAS

36

9-89

17/04/18

Location

Loc Qty

Loc Code

FP001

100

m135945

100

GA

198

m134360

102

M136665

96

30

OVER007

800

m134360

0

M136665

300

m137166

500

ST303

189

m137073

189

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DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐	OTHER : _____			

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Work Order ID: 159679

159679

Parent Item: 646.3301

646 3301

Parent Item Name: Upper Cutter Assembly

Start Date: 4/17/2017

Required Date: 5/11/2017

Start Qty: 10.00

Required Qty: 10.00

MS27039-08-19

Purchased

No

110

Each

304.0000

18

180

MS27039-08-19

Screw

DAS
36
9-89
17/04/18

Location

Loc Qty

Loc Code

GA

50

m135948

50

over006

100

m137061

100

ST277

154

m136851

54

m136975

50

m137178

50

AN3-14A

Purchased

No

110

Each

187.0000

1

10

AN3-14A

Bolt

DAS
30
9-89

APR 17 2017

Location

Loc Qty

Loc Code

over003

155

m134852

0

m137075

155

ST349

32

m136838

32

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Shop Packet Print

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DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause			FAULT CATEGORY			
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____				
Misidentified ☐	Past Due ☐					

APICAL

INDUSTRIES, INC.

ENGINEERING CHANGE NOTICE NO.

04765

SHEET 1 OF 1

DWG NO. 646.3300

REV: NC

PREPARED BY J. SOTO

DATE: 12/08/2014

EFFECT ON DWG
☐ INC. ☒ UNINC.

DWG TITLE: UPPER CUTTER ASSY

APPROVED BY:

ENGR

MFG

QC

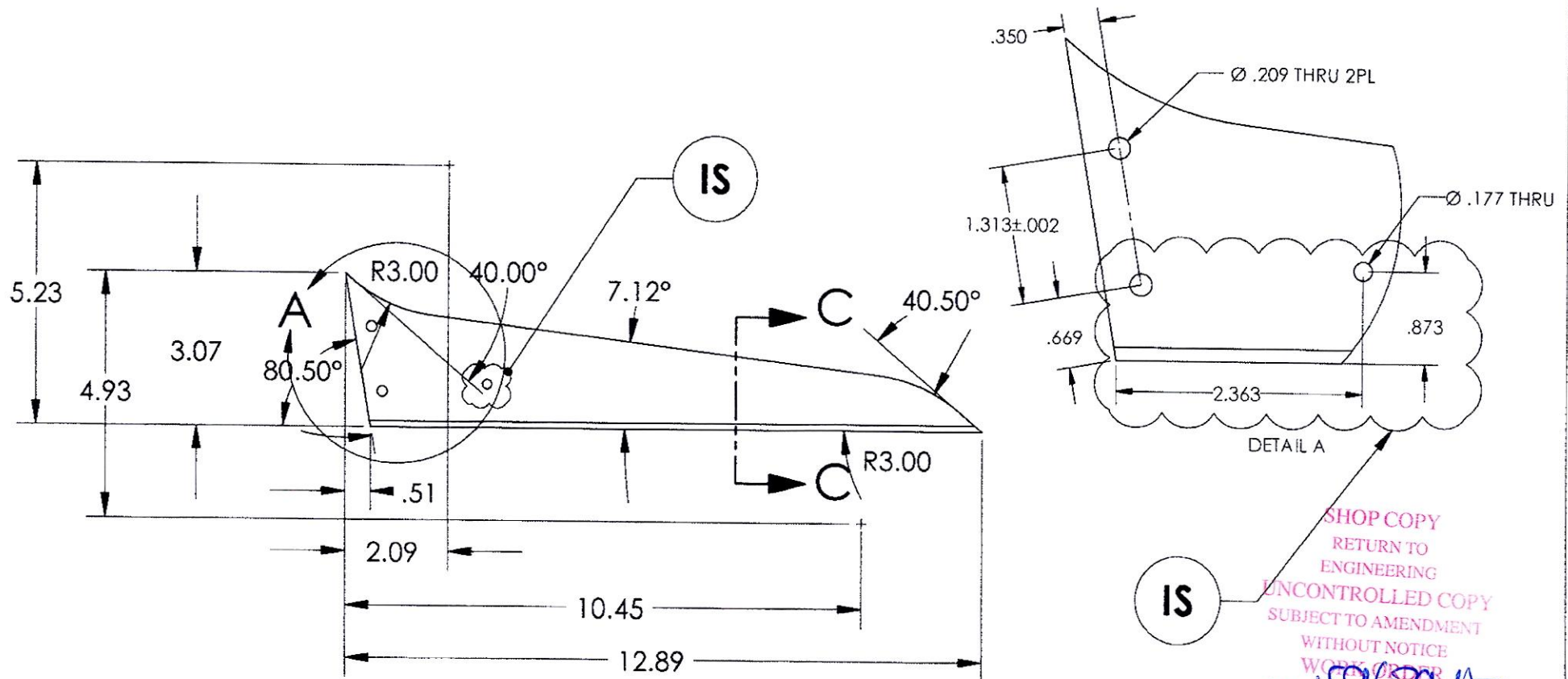
EFF.

NEXT ORDER

TRANSACTION CODES (TC):
A-ADD
R-REVISE
C-CREATE
D-DELETE

REASON: ADDED HOLE DIMENSION TO 646.3313.

SHEET 5 IS:



SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 159679
APR 17 2017

DOCUMENTS EFFECTED:

☐ MDL ☐ INSTALL INSTRUCTIONS ☐ ICA ☐ FMS ☐ BOM

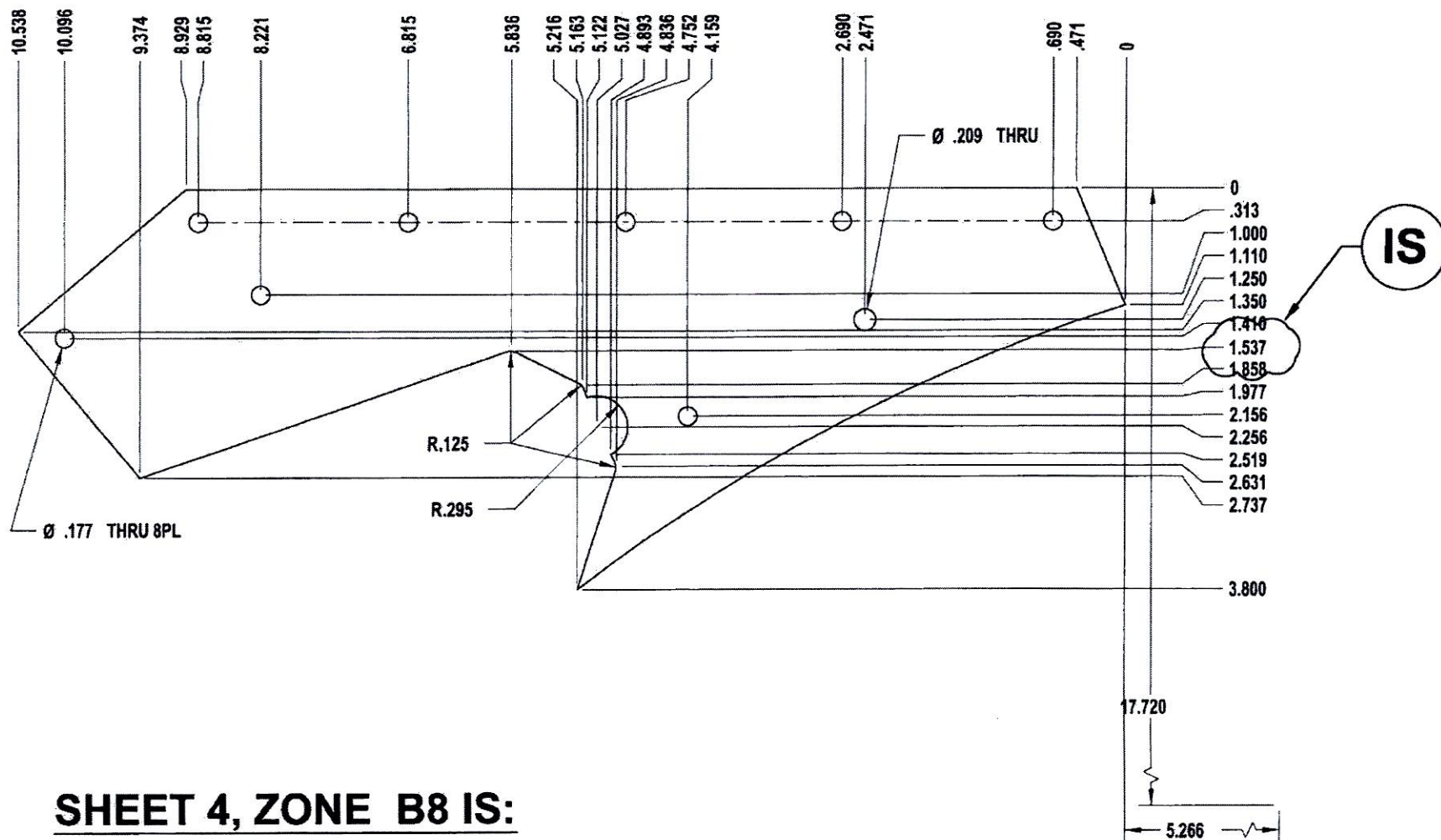
CHANGE CATEGORY

☐ MAJOR ☒ MINOR

DER REVIEW REQUIRED

☐ YES ☒ NO

APICAL INDUSTRIES, INC.	ENGINEERING CHANGE NOTICE NO. 03724				SHEET 1 OF 1	
	DWG NO. 646.3300	REV: N/C	PREPARED BY B. PETERS	DATE: 12/05/12	EFFECT ON DWG ☐ INC. ☒ UNINC.	
	DWG TITLE: UPPER CUTTER ASSY					
	APPROVED BY: ENGR <i>[Signature]</i>	MFG <i>[Signature]</i>	QC <i>[Signature]</i>	EFF: NEXT ORDER		
TRANSACTION CODES (TC) A-ADD C-CREATE R-REVISE D-DELETE	REASON: REVISED ORDINATE DIMENSION.				ECR: D-12-025	

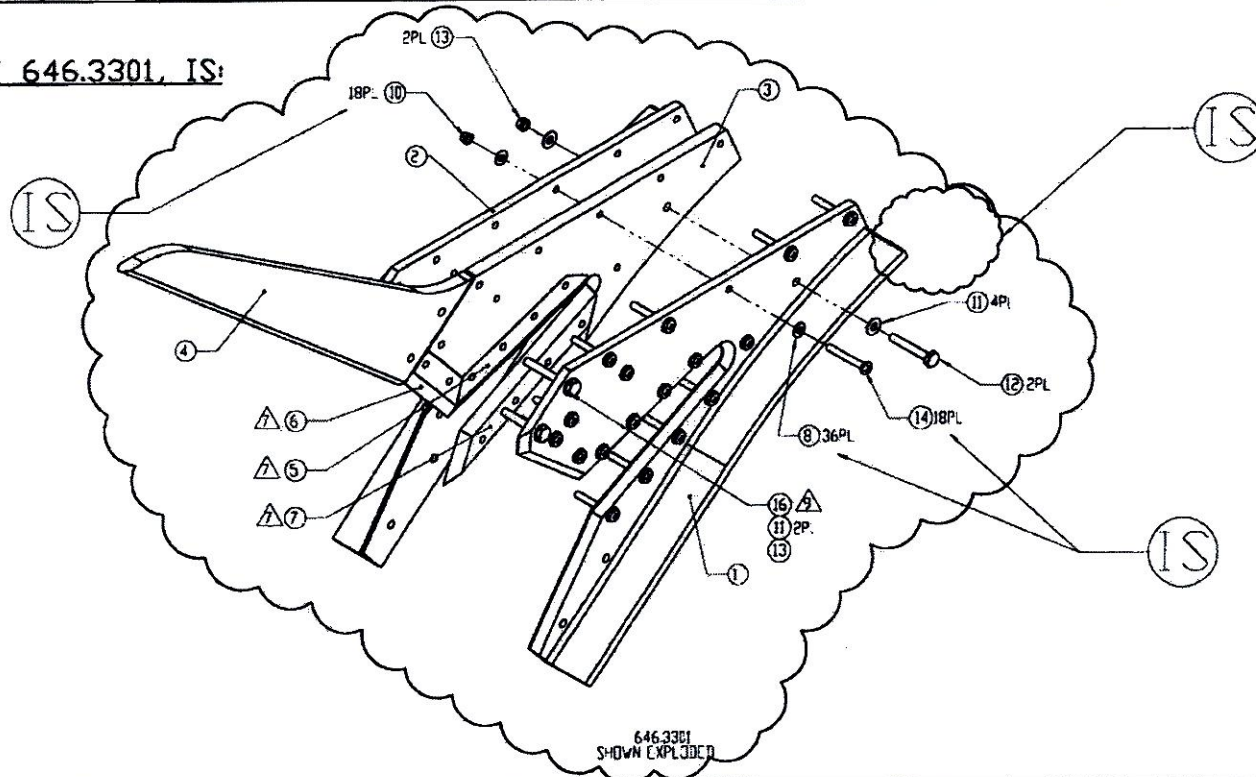


SHEET 4, ZONE B8 IS:

DOCUMENTS EFFECTED:	☐ RFMS ☐ MDL ☐ INSTALL INSTRU ☐ ICA ☐ BOM	CHANGE CATEGORY ☐ MAJOR ☒ MINOR	DER REVIEW REQUIRED ☐ YES ☒ NO
---------------------	--	---	--

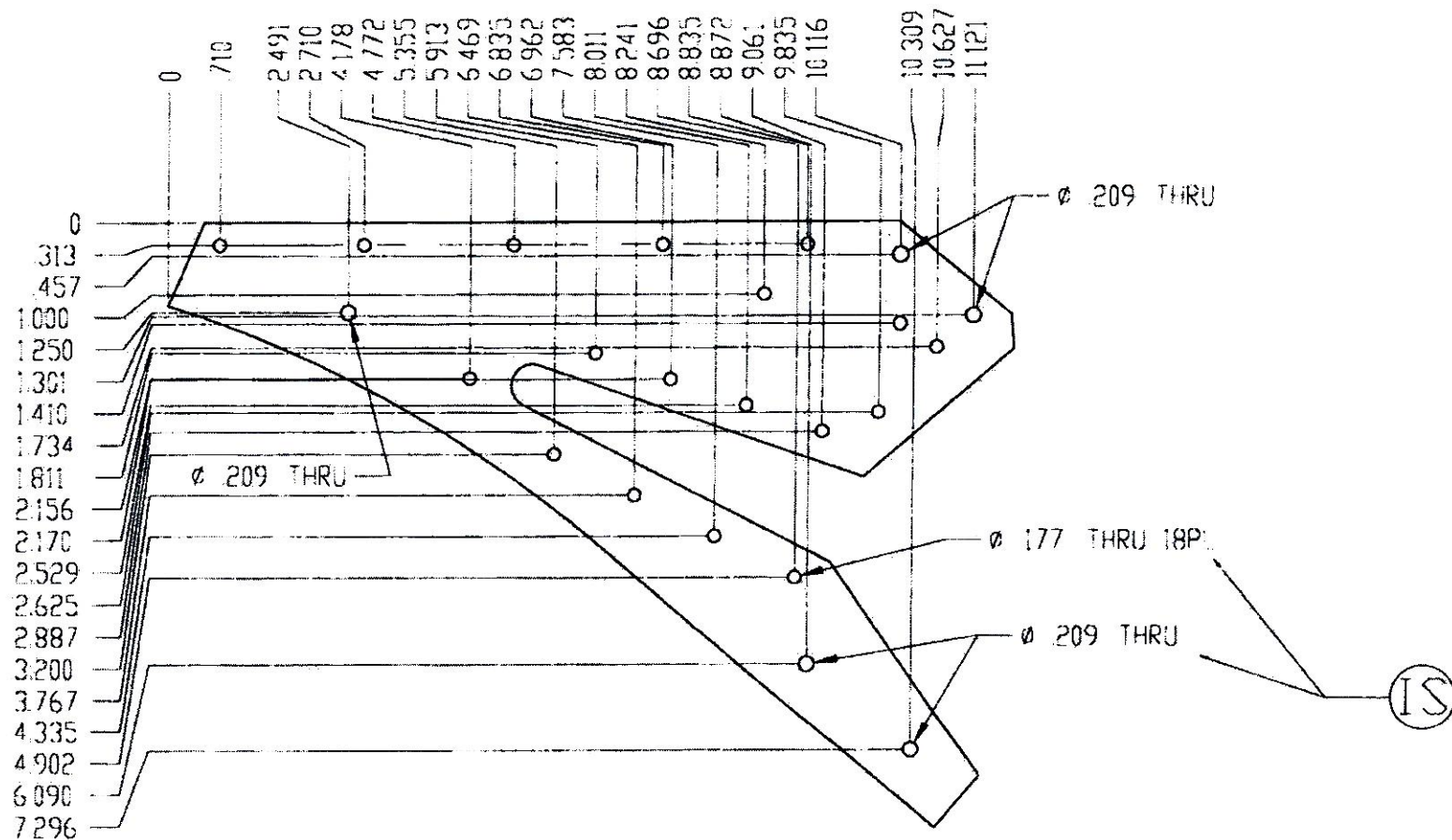
APICAL INDUSTRIES, INC.	ENGINEERING CHANGE NOTICE NO. 02196		SHEET 1 OF 2	
	DWG NO. 646.3300	REV: N/C	PREPARED BY S. HUFF	DATE: 01/05/09
	EFFECT ON DWG ☐ INC. ☒ UNINC.			
DWG TITLE: UPPER CUTTER ASSY				
APPROVED BY: ENGR <i>[Signature]</i>	MFG <i>[Signature]</i>	QC <i>[Signature]</i>	EFF: NEXT ORDER	
REASON: REMOVED RIVETS IN FAVOR OF ADDITIONAL SCREWS				
TRANSACTION CODES (TC) A-ADD C-CREATE R-REVISE D-DELETE				

SHEET 1, VIEW 646.3301, IS:



14	R	601.2765	18	SCREW	MS27039-0819
10	R	601.1541	18	LOCKNUT	MS21042L08
9	D	601.2766	3	RIVET	MS20470AD5-18
8	R	601.2764	36	WASHER	NAS1149FN832P
			.3301		
F/N TC	PART NUMBER	QTY	DESCRIPTION	MATERIAL/SPECIFICATION	
DOCUMENTS EFFECTED:					CHANGE CATEGORY
☐ MDL ☒ INSTALL INSTRU ☒ ICA ☐ FMS ☒ BOM					DER REVIEW REQUIRED
					☐ MAJOR ☒ MINOR
					☐ YES ☒ NO

SHEET 3. SECTION VIEW A-A, IS:

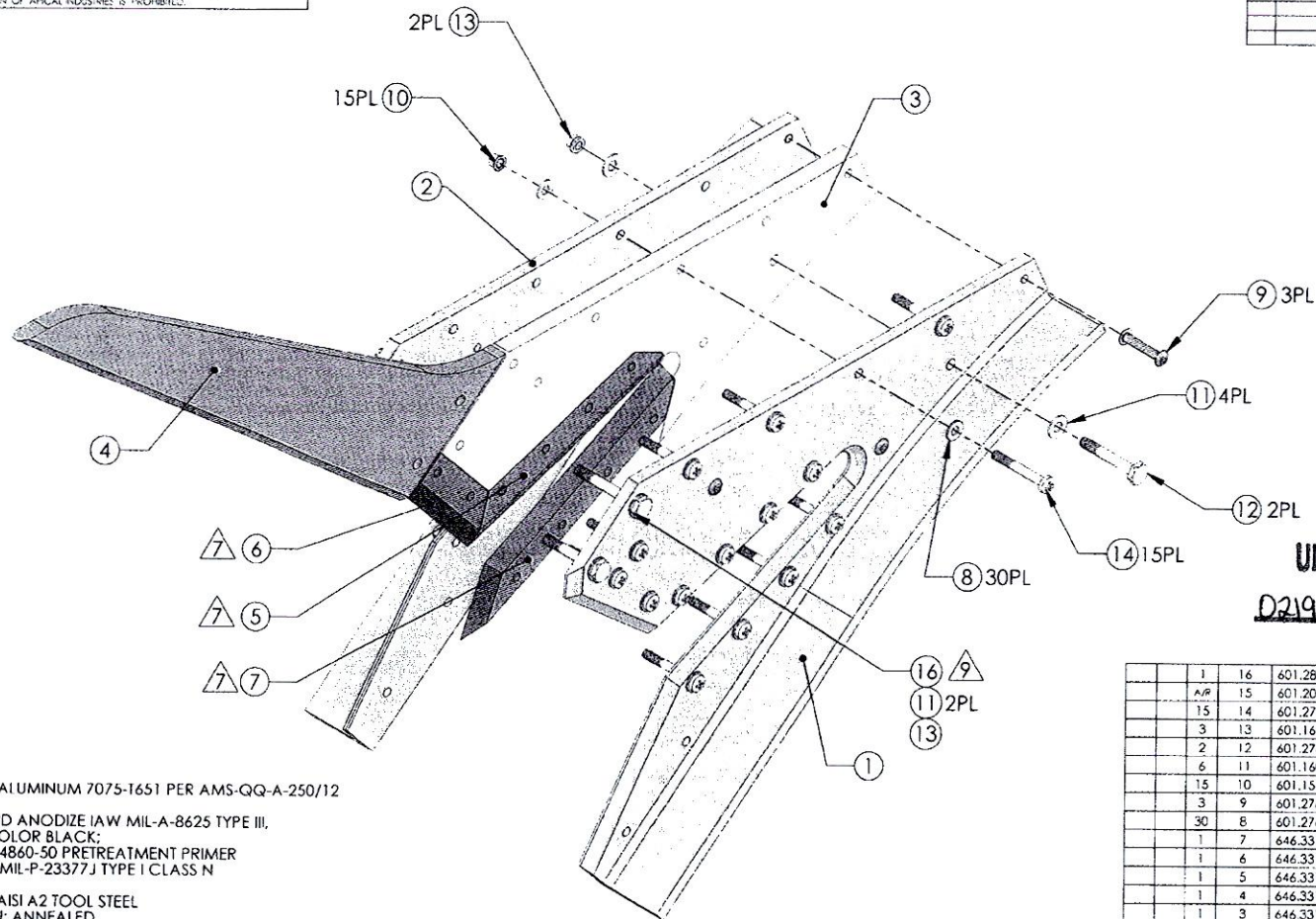


SECTION A-A

F/N	TC	PART NUMBER	QTY	DESCRIPTION	MATERIAL/SPECIFICATION

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REV	DESCRIPTION	DATE	APPROVED



UNINCORPORATED ECN(S)

02196, 03724, 04765

NOTES:

- 1 MATERIAL: ALUMINUM 7075-T651 PER AMS-QQ-A-250/12
- 2 FINISH: HARD ANODIZE IAW MIL-A-8625 TYPE III, CLASS 2, COLOR BLACK; CARDINAL 4860-50 PRETREATMENT PRIMER PRIME IAW MIL-P-23377J TYPE I CLASS N
- 3 MATERIAL: AISI A2 TOOL STEEL
CONDITION: ANNEALED
POST PROCESS: HEAT TREAT TO 58-62 Rc ROCKWELL HARDNESS
- 4 FINISH: PRIME IAW MIL-P-23377J TYPE I CLASS N
5. DEBURR AND BREAK ALL SHARP EDGES EXCEPT WHERE OTHERWISE NOTED
6. IDENTIFY IAW MPP-120
- 7 APPLY F/N 15 AS REQUIRED TO ALL FAYING SURFACES OF F/N 5, 6 & 7 UPON ASSEMBLY
- 8 CUTTING EDGE INTENDED TO BE SHARP. DO NOT BREAK SHARP EDGE
- 9 INSTALL FASTENER FINGER-TIGHT

646.3301
SHOWN EXPLODED

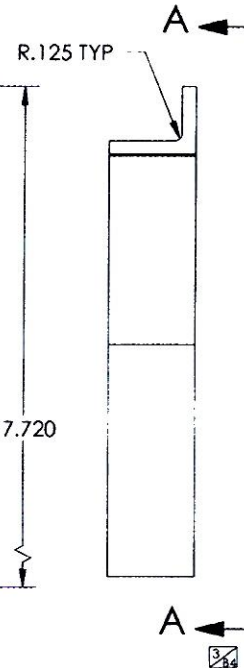
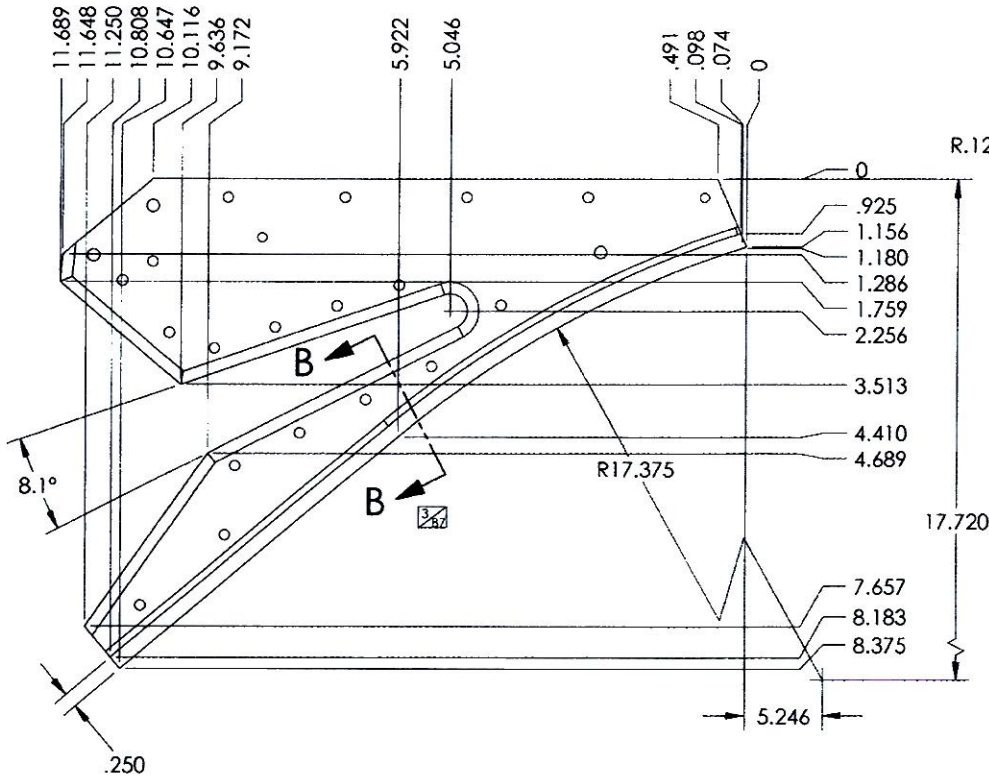
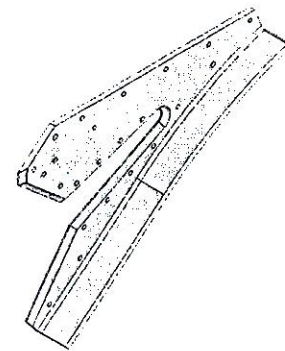
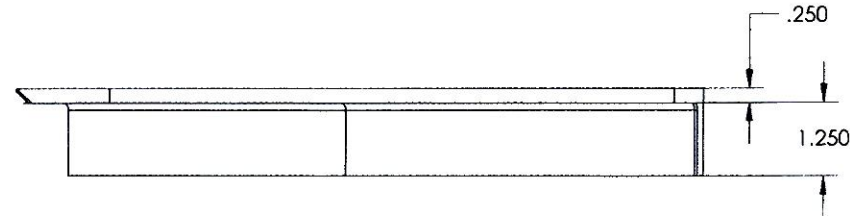
QTY	FIND #	PART #	DESCRIPTION	MAT'L	SPEC.
1	16	601.2834	BOLT	AMS-144	
15	15	601.2045	RTV, LOCITE 598		
15	14	601.2765	SCREW	MS27031-0815	
3	13	601.1624	LOCKNUT	MS2704313	
2	12	601.2763	BOLT	AMS-124	
6	11	601.1607	WASHER	MS1149F032P	
15	10	601.1541	LOCKNUT	MS1149F032P	
3	9	601.2766	RIVET	MS20470A-05-18	
30	8	601.2764	WASHER	MS1149F032P	
1	7	646.3316	BLADE		
1	6	646.3315	BLADE		
1	5	646.3314	BLADE		
1	4	646.3313	UPPER GUIDE		
1	3	646.3312	CENTER PLATE		
1	2	646.3311	RH HALF		
1	1	646.3310	LH HALF		
1	X	646.3301	UPPER CUTTER ASSY		
QTY	FIND #	PART #	DESCRIPTION	MAT'L	SPEC.
1	16	601.2834	BOLT	AMS-144	
15	15	601.2045	RTV, LOCITE 598		
15	14	601.2765	SCREW	MS27031-0815	
3	13	601.1624	LOCKNUT	MS2704313	
2	12	601.2763	BOLT	AMS-124	
6	11	601.1607	WASHER	MS1149F032P	
15	10	601.1541	LOCKNUT	MS1149F032P	
3	9	601.2766	RIVET	MS20470A-05-18	
30	8	601.2764	WASHER	MS1149F032P	
1	7	646.3316	BLADE		
1	6	646.3315	BLADE		
1	5	646.3314	BLADE		
1	4	646.3313	UPPER GUIDE		
1	3	646.3312	CENTER PLATE		
1	2	646.3311	RH HALF		
1	1	646.3310	LH HALF		
1	X	646.3301	UPPER CUTTER ASSY		

APICAL INDUSTRIES
2608 TEMPLE HEIGHTS DR
OCEANSIDE, CA. 92056-3512 (760)724-5300

UPPER CUTTER ASSY

SCALE NONE SHEET 1 OF 8

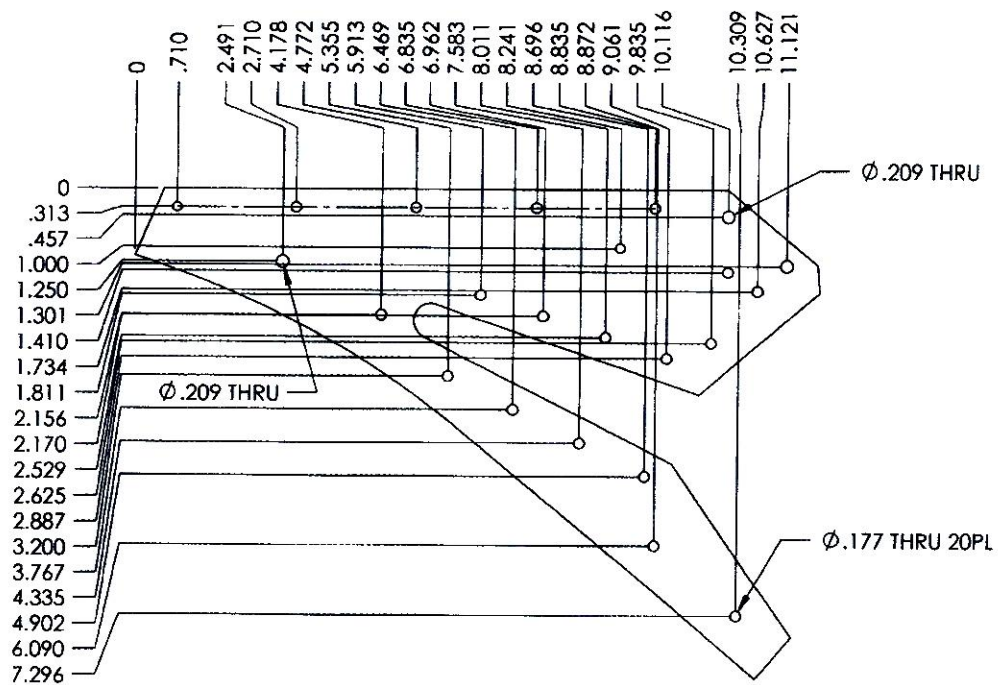
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646.3310 SHOWN
646.3311 OPPOSITE

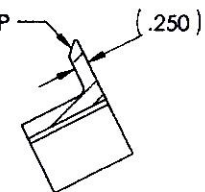
ORIGINAL DATE: 08/24/08 DRAWN BY: CHICAGO E. HOFF P. BRAYO CHECKED BY: CHICAGO P. BRAYO CONTRACT NO:		APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300	
PARTS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.005 ANGLES ±.5°		SET: B FLASK CODE: 071A26 DWG. NO: 646.3300 SCALE: NONE	PER: N/C SHEET: 2 OF 8

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SECTION A-A

.200 X 45.0° TYP

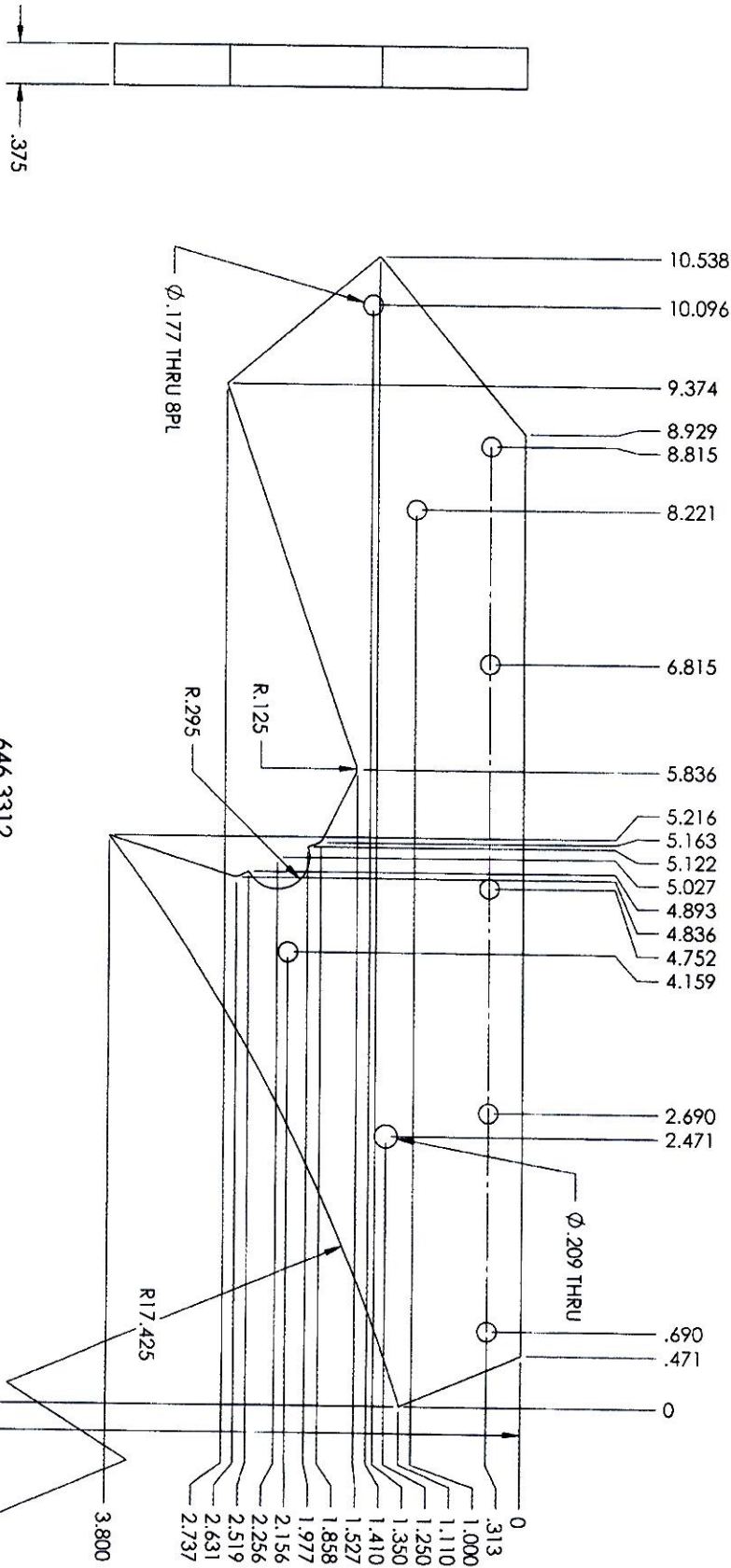


SECTION B-B

ORIGINAL DATE 10/20/06		APICAL INDUSTRIES	
DRAWN BY: C. H. CREEP		2608 TEMPLE HEIGHTS DR.	
CHECKED BY: B. H. HAYES		OCEANSIDE, CA, 92056-3612 (760) 724-5300	
DATE: 10/20/06		UPPER CUTTER ASSY	
CONTRACT NO.		REV. N/C	
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTIONS DECIMALS ±.005 ANGLES ±.5°		DATE CODE B 07/02/06	QWTS. NO. 646.3300
SCALE: NONE		SHEET 3 OF 8	

ALL INFORMATION CONTAINED HEREIN IS UNCLASSIFIED
 APICAL INDUSTRIES AND APICAL INDUSTRIES PART OF APICAL INDUSTRIES
 THE WRITTEN PERMISSION OF APICAL INDUSTRIES IS REQUIRED

REV	DESCRIPTION	DATE	BY
1		1/18/2015	
2			
3			
4			
5			
6			
7			
8			

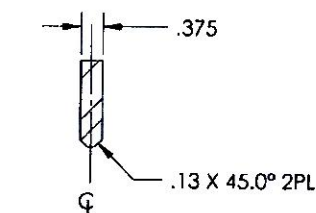
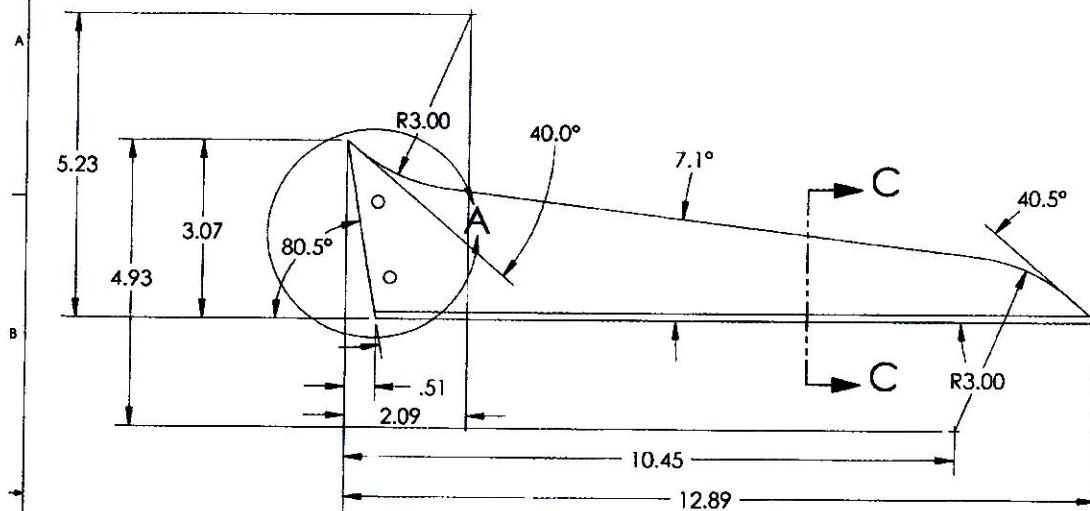


646.3312
 HOLE DIMENSIONS AND LOCATIONS
 +/- .002

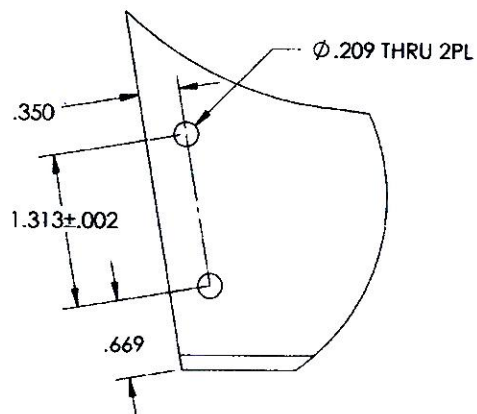
APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA 92056-3512 (760) 724-5300	UPPER CUTTER ASSY
DATE: 1/18/2015 DRAWN BY: J. B. BROWN CHECKED BY: J. B. BROWN PART NUMBER: 646.3300 SCALE: NONE	REV: 1 BY: J. B. BROWN DATE: 1/18/2015

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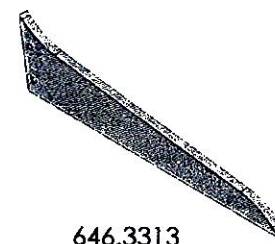
REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



SECTION C-C



DETAIL A

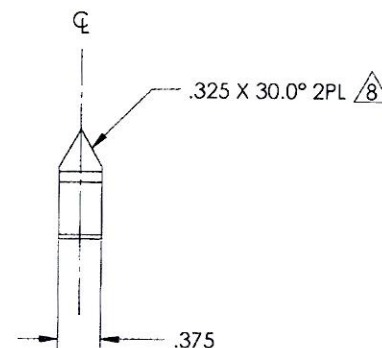
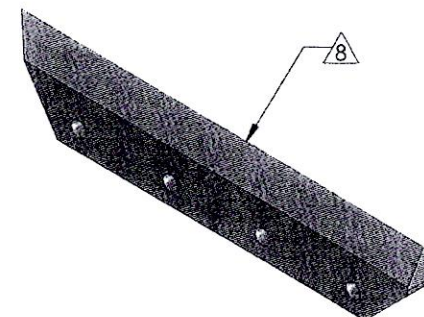
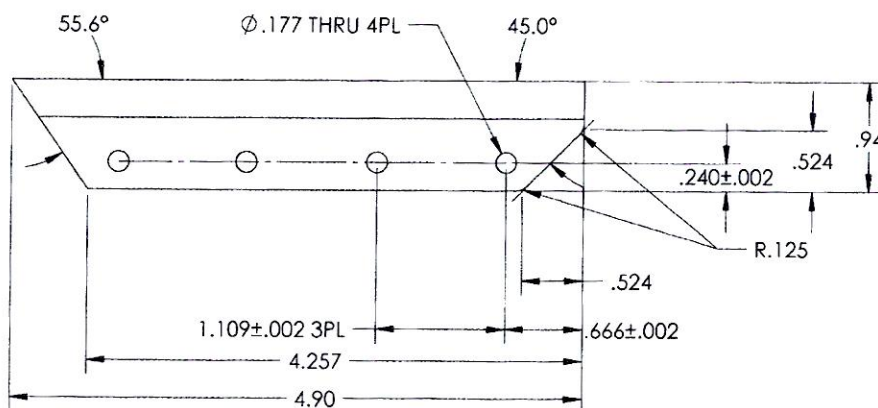


646.3313

ORIGINAL DATE 08-26-08		APICAL INDUSTRIES	
DRAWN BY: [signature]		2608 TEMPLE HEIGHTS DR.	
CHECKED BY: [signature]		OCEANSIDE, CA 92056-3512 (760) 724-5300	
DESIGNED BY: [signature]		UPPER CUTTER ASSY	
DATE: 07/26/08		SCALE: NONE	SHEET: 5 OF 8
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 7 PLACE DECIMALS ± .01 3 PLACE DECIMALS ± .001 ANGLES ± .5°		DATE: 07/26/08	REV: N/C

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REVISIONS			
REV	DESCRIPTION	DATE	APPROVED

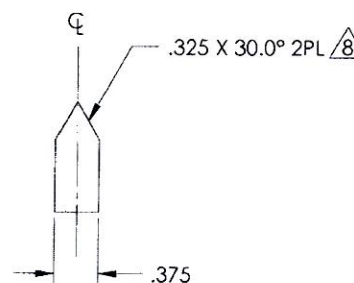
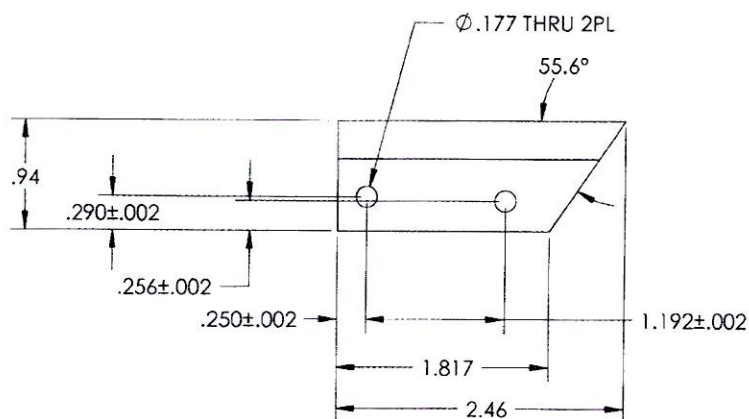
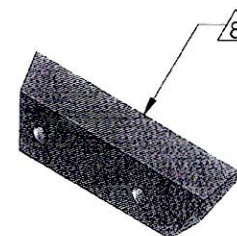


646.3314

ORIGINAL DATE 10/01/96		APICAL INDUSTRIES	
DRAWN BY: CNECER		2608 TEMPLE HEIGHTS DR.	
S. HURF		OCEANSIDE, CA 92056-3512 (760)724-5300	
P. BEAVO		UPPER CUTTER ASSY	
OPERATING APPROVAL		187 CAGE CODE	REV
CONTRACT NO.		B 07M26	646.3300
2 PLACES DECIMALS SPECIFIED		SCALE: NONE	SHEET 6 OF 8
DIMENSIONS ARE IN INCHES			
TOLERANCES ARE:			
2 PLACES DECIMALS $\pm .01$			
2 PLACES DECIMALS $\pm .005$			
ANGLES $\pm .5^\circ$			

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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED



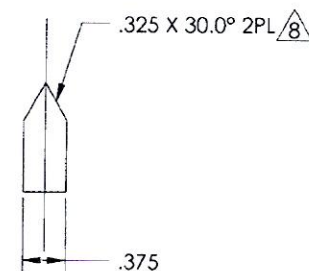
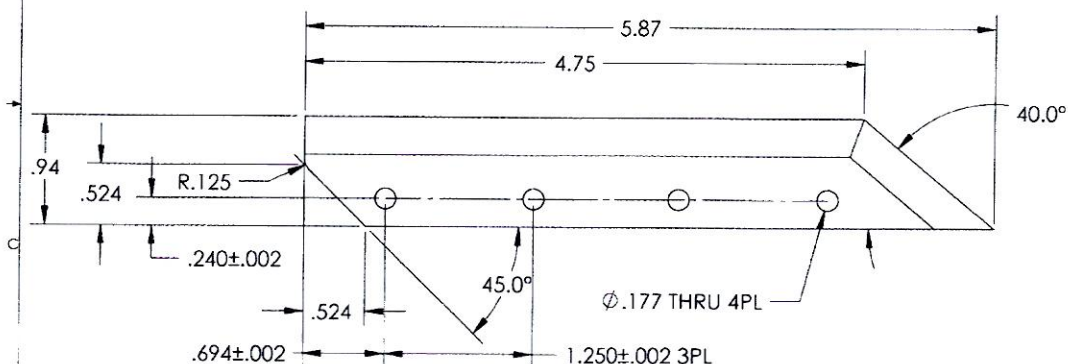
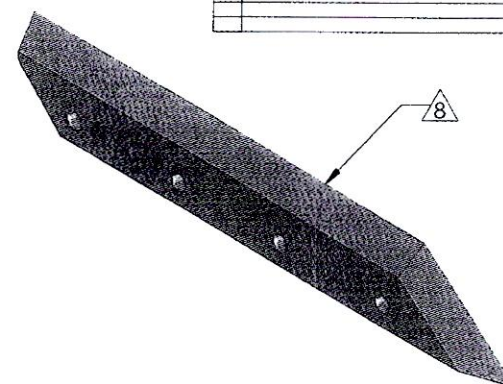
646.3315

ORIGINAL DATE 10/01/01		DESIGNED BY P. BRAVO	
DRAWN BY S. NUFF		CHECKED BY P. BRAVO	
DRAWING APPROVAL P. BRAVO		CONTRACT NO.	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.005 ANGLES ±.5°		REV B	DATE 07/26/06
SCALE: NONE		SYD. NO. 646.3300	REV. N/C
SHEET 7 OF 8			

APICAL INDUSTRIES
2608 TEMPLE HEIGHTS DR.
OCEANSIDE, CA. 92056-3512 (760)724-5300
UPPER CUTTER ASSY

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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED



646.3316

ORIGINAL DATE: 08-26-08			
DRAWN BY: S. NUT	CHECKED: P. BRAVO	APICAL INDUSTRIES	
DRAWING APPROVAL: P. BRAVO		2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300	
CONTRACT NO:		UPPER CUTTER ASSY	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.005 ANGLES ±.5°		TIT: LAGI CODE: 07M126 B 07M126	REV: N/C 646.3300 SCALE: NONE
		SHEET: 8 OF 8	